

# EXHIBIT 9

2019 WL 6053223

Only the Westlaw citation is currently available.  
United States District Court, M.D. Pennsylvania.

R.D., Plaintiff,

v.

SHOHOLA, INC., Defendant.

Civil No. 3:16-CV-01056

Signed 11/15/2019

#### Attorneys and Law Firms

Michael B. Leh, Jerry A. Lindheim, Ryan W. Anderson, Locks Law Firm LLC, Philadelphia, PA, Alfred M. Anthony, Pro Hac Vice, Locks Law Firm LLC, Cherry Hill, NJ, Jacqueline DeCarlo, Pro Hac Vice, Norman M. Hobbie, Pro Hac Vice, Justin L. Klein, Pro Hac Vice, Hobbie, Corrigan & Bertucio, P.C., Eatontown, NJ, for Plaintiff.

Glen Feinberg, Pro Hac Vice, Wilson Elser Moskowitz Edelman & Dicker LLP, White Plains, NY, Maria G. Perri, Wilson Elser Moskowitz Edelman & Dicker LLP, Philadelphia, PA, Melissa A. Murphy-Petros, Pro Hac Vice, Wilson Elser Moskowitz Edelman & Dicker LLP, Chicago, IL, for Defendant.

#### MEMORANDUM OPINION

MARTIN C. CARLSON, United States Magistrate Judge

##### **I. Factual Background**

\*1 This case involves allegations of negligence by the defendant, Shohola, Inc., during a July 2007 Cape Cod camping excursion conducted by the defendant. In the course of this excursion, four minors—N.S., R.D., G.M., and E.J.<sup>1</sup>—were placed together in a tent without any immediate, direct adult supervision. What transpired in that tent twelve years ago lies at the heart of this lawsuit. As to these events, the witnesses provide accounts that are to some degree inconsistent with one another, and the statements of some witnesses contain some internal contradictions and inconsistencies.

As a result of this episode, R.D. alleges that he was the victim of sexual assault and suffered both physical and psychological injuries. The psychological harms that R.D. alleges were

either caused by, or exacerbated by, this incident include post-traumatic stress disorder (PTSD), borderline personality disorder, bi-polar disorder, and depression. R.D. is now pursuing a negligence action against Shohola, arguing that in 2007, Shohola was negligent in the placement of an older teen, N.S., in this tent with younger boys, and in failing to more carefully oversee these youths as they slept together since the danger of potential sexualized, non-consensual and predatory behavior was readily foreseeable in this setting, and was in fact foreseen by Shohola counsellors.

Given the claims and injuries alleged in this case by R.D., the workings of the human mind are critical to an informed evaluation of this case by the jury. It was against this factual backdrop that we considered various motions *in limine* which sought to shape, define and limit the expert psychological evidence that may be presented to the jury. (Docs. 174, 203, and 253.) These motions sought pre-trial rulings addressing the proffered testimony of several medical witnesses. In particular, the motions sought pre-trial rulings regarding the admissibility of the testimony of two expert witnesses, Dr. Roger Pitman and Dr. Elizabeth Loftus.

For its part, Shohola filed two motions challenging the proposed anticipated testimony of Dr. Roger Pitman, an expert witness retained by the plaintiff. (Docs. 203, 253.) Dr. Pitman evaluated R.D., conducted a battery of tests on R.D., and reviewed documents relating to R.D. and this case. As a result of these clinical encounters, evaluations, and tests, Dr. Pitman was prepared to testify to a range of matters. For example, it was proffered that Dr. Pitman could testify that he diagnosed R.D. as suffering from PTSD, bi-polar and borderline personality disorders, as well as depression. The plaintiff also proposed that Dr. Pitman would be prepared to testify that sexual trauma can cause PTSD and substantially contribute to the onset or exacerbation of these other disorders. In addition, the plaintiff was prepared to elicit testimony from Dr. Pitman that R.D.'s symptoms and diagnoses are consistent with PTSD caused by sexual violence, and more specifically testify that the clinical cause of R.D.'s PTSD was N.S.'s 2007 sexual assault of the plaintiff while on this Camp Shohola excursion. According to the defendant, many, if not all, of these lines of inquiries would be inappropriate and would overstep the bounds of proper expert testimony.

\*2 The plaintiff, in turn, filed a motion *in limine* to exclude the testimony of a defense expert, Dr. Elizabeth Loftus. (Doc. 174.) Dr. Loftus had never examined or treated R.D. but

was proffered as an expert witness who can testify to the inaccuracy and vagaries of human recollection.<sup>2</sup> According to the plaintiff, this proposed expert testimony is speculative, lacks scientific support, invades the province of the jury, and should, therefore, be excluded from the trial of this case.<sup>3</sup>

**\*3** Presented with these motions, our task is to define the degree to which scientific expert testimony on the working of the mind, and the factors which color and shape human recollection, would aid the jury in its search for the truth while ensuring that this expert testimony does not improperly intrude upon the cardinal function of the jury, which is to assess witness credibility. We undertake this task guided by the analytical paradigm for the assessment of expert opinions prescribed by [Rule 702 of the Federal Rules of Evidence](#) and the United States Supreme Court in *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579, 113 S. Ct. 2786, 125 L. Ed. 2d 469 (1993), which call upon us to perform a gatekeeping function when evaluating proposed expert testimony and consider: “(1) the qualifications of the expert, (2) the reliability of the process or technique the expert used in formulating the opinion, and (3) the ‘fit’ between the opinion and the facts in dispute.” *Buzzerd v. Flagship Carwash of Port St. Lucie, Inc.*, 669 F. Supp. 2d 514, 519 (M.D. Pa. 2009) (citing *In re Paoli R.R. Yard PCB Litig.*, 35 F.3d 717, 741-47 (3d Cir. 1994) (“*Paoli II*”).

While we recognize that the resolution of these issues rests in the sound discretion of the court, given the constellation of factual matters which *Daubert* invites us to consider, we are mindful that oftentimes “[i]t would appear that the most efficient procedure that the district court can use in making the reliability determination is an *in limine* hearing.” *United States v. Downing*, 753 F.2d 1224, 1241 (3d Cir. 1985). Accordingly, on November 7, 2019, we conducted a *Daubert* hearing in this case focusing on the proffered testimony of Dr. Pitman and Dr. Loftus, as well as the testimony of Dr. Mack. We also invited and received supplemental briefs from the parties outlining their respective positions regarding these expert witnesses. (Docs. 353 and 354). We have carefully considered the written submissions of the parties, as well as the testimony and exhibits presented at this hearing.

Having conducted this review, for the reasons set forth below, we will permit testimony by Dr. Pitman, as described below, and will allow Dr. Mack to testify consistent with his expert report, but we will exclude the testimony of Dr. Loftus.

## II. Discussion

### A. Rules Governing Expert Testimony

Any consideration of the proper scope of expert witness testimony begins with [Rule 702 of the Federal Rules of Evidence](#), which provides as follows:

A witness who is qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion or otherwise if:

- (a) the expert's scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue;
- (b) that testimony is based on sufficient facts or data;
- (c) the testimony is the product of reliable principles and methods; and
- (d) the expert has reliably applied the principles and methods to the facts of the case.

[Fed. R. Evid. 702](#). Following the Supreme Court's guidance in *Daubert*, the United States Court of Appeals for the Third Circuit has explained that the Rule provides for a “trilogy of restrictions on expert testimony: qualification, reliability and fit.” *Calhoun v. Yamaha Motor Corp.*, 350 F.3d 316, 321 (3d Cir. 2003). Under the Rule, the trial judge acts as a “gatekeeper” to ensure that before it is presented to a jury, expert testimony is “both relevant and reliable.” *Buzzerd v. Flagship Carwash of Port St. Lucie, Inc.*, 669 F. Supp. 2d 514, 519 (M.D. Pa. 2009) (citing *Daubert*, 509 U.S. at 589). In cases where a party objects to the admissibility to proffered expert opinion testimony, the court must examine: “(1) the qualifications of the expert, (2) the reliability of the process or technique the expert used in formulating the opinion, and (3) the ‘fit’ between the opinion and the facts in dispute.” *Id.* (citing *In re Paoli R.R. Yard PCB Litig.*, 35 F.3d 717, 741-47 (3d Cir. 1994) (“*Paoli II*”)). In other words, a qualified expert's “testimony must [(1)] be based on sufficient facts and data; (2) must be the product of a reliable methodology; and (3) must demonstrate a relevant connection between that methodology and the facts of the case.” *Jaasma v. Shell Oil Co.*, 412 F.3d 501, 513 (3d Cir. 2005).

**\*4** To be qualified to provide expert testimony, an expert must possess sufficient qualifications in the field, but this requirement is not overly restrictive. Thus, the Third Circuit has “eschewed imposing overly rigorous requirements of

expertise and [has] been satisfied with more generalized qualifications.” *Paoli II*, 35 F.3d at 741. In other words, “an expert's qualifications should be assessed ‘liberally,’ recognizing that ‘a broad range of knowledge, skills, and training qualify an expert as such.’ ” *Thomas v. CMI Terex Corp.*, Civil No. 07-3597, 2009 WL 3068242, at \*5 (D.N.J. Sept. 21, 2009) (quoting *Paoli II*, 35 F.3d at 741). An expert will not be excluded “simply because [the court] does not deem the proposed expert to be the best qualified or because the proposed expert does not have the specialization that the court considers most appropriate.” *Holbrook v. Lykes, Bros. S.S. Co.*, 80 F.3d 777, 782 (3d Cir. 1996). The focus, instead, is on whether the qualifications that an expert does have provide a foundation for the witness to testify meaningfully on a given matter. See *Buzzard*, 669 F. Supp. 2d at 522 (citing *Rose v. Truck Centers, Inc.*, 611 F. Supp. 2d 745, 749 (N.D. Ohio 2009)) (“The issue with regard to expert testimony is not the qualifications of a witness in the abstract, but whether those qualifications provide a foundation for a witness to answer a specific question.”) (quoting *Berry v. City of Detroit*, 25 F.3d 1342, 1351 (6th Cir. 1994)).

Provided an expert is qualified to give opinion testimony in a given area, the testimony must also be reliable. Accordingly, a court need not “admit opinion evidence that is connected to existing data only by the *ipse dixit* of the expert. A court may conclude that there is simply too great an analytical leap between the data and the opinion proffered.” *Gen. Elec. Co. v. Joiner*, 522 U.S. 136, 146 (1997). In determining whether proposed testimony is sufficiently reliable, courts are to consider the following factors:

- (1) whether a method consists of a testable hypothesis; (2) whether the method has been subject to peer review; (3) the known or potential rate of error; (4) the existence and maintenance of standards controlling the technique's operation; (5) whether the method is generally accepted; (6) the relationship of the technique to methods which have been established to be reliable; (7) the qualifications of the expert witness testifying based on the methodology; and (8) the non-judicial uses to which the method has been put.

*Paoli II*, 35 F.3d at 742 n.8. These factors “may or may not be pertinent in assessing reliability, depending on the nature of the issue, the expert's particular expertise, and the subject of his testimony.” *Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 147 (1999) (citation omitted); *accord Kannankeril*, 128 F.3d at 806-07 (“[T]hese factors are neither exhaustive nor applicable in every case.”). Accordingly, the inquiry into reliability is flexible and depends upon the facts of each particular case. *Kumho Tire Co.*, 526 U.S. at 150.

The Third Circuit has noted that the reliability standard is “not intended to be a high one” and is not designed to be applied in a way that “requires the plaintiffs ‘to prove their case twice – they do not have to demonstrate to the judge by a preponderance of the evidence that the assessments of their experts are correct, they only have to demonstrate by a preponderance of the evidence that their opinions are reliable.’ ” *Oddi v. Ford Motor Co.*, 234 F.3d 136, 145 (3d Cir. 2000) (quoting *Paoli II*, 35 F.3d at 743). Noting that this is “a very important distinction,” *id.*, the Third Circuit explained that the proper test is whether the “particular opinion is based on valid reasoning and reliable methodology.” *Id.* (quoting *Kannankeril*, 128 F.3d at 806). However, the court was careful to emphasize that “conclusions and methodology are not entirely distinct from one another,” *id.* (quoting *Joiner*, 522 U.S. at 146), and that a court must therefore “examine the expert's conclusions in order to determine whether they could reliably flow from the facts known to the expert and the methodology used.” *Id.* (quoting *Heller v. Shaw Indus., Inc.*, 167 F.3d 146, 153 (3d Cir. 1999)).

\*5 In order to be reliable, an expert's opinion must not be speculative or rest upon conjecture. Simply put” “[a]n expert's opinion is reliable if it is ‘based on the “methods and procedures of science” rather than on “subjective belief or unsupported speculation”; the expert must have ‘good grounds’ for his or her belief.’ ” *Elcock v. Kmart Corp.*, 233 F.3d 734, 745 (3d Cir. 2000). Further, “under Pennsylvania law, an expert ... [typically] must testify to a ‘reasonable degree of medical certainty,’ a standard which cannot be met if the expert testimony is based on speculation.” *Pritchard v. Dow Agro Scis.*, 705 F. Supp. 2d 471, 493 n. 18 (W.D. Pa. 2010), *aff'd*, 430 F. App'x 102 (3d Cir. 2011) (citing *Griffin v. University of Pittsburgh Medical Center–Braddock Hosp.*, 950 A.2d 996 (Pa. Super. Ct. 2008)).

Closely tied to this inquiry, courts have found that opinion testimony is not reliable if it relies solely on the plaintiff's own claims of harm at the exclusion of reliance upon

other scientific or technical information in order to test the plaintiff's allegations. *See, e.g., Steven J. Inc. v. Landmark Am. Ins. Co.*, Civ. A. No. 1:14-CV-0474, 2015 WL 3849166, at \*6 (M.D. Pa. June 22, 2015) (Conner, C.J.) (excluding proffered expert witness's testimony because "his methodology falls far short of the required quantum of reliability" where the expert had relied exclusively on information provided by the plaintiffs' representatives regarding the harm alleged, but where the expert "was unable to verify these representations" on his own); *cf. Hayden v. Westfield Ins. Co.*, No. 12-0390, 2013 WL 5781121, at \*8 (W.D. Pa. Oct. 25, 2013) (finding fault with expert's report where it failed to consider other factors that may have contributed to the damage at issue), *aff'd on other grounds*, 586 F. App'x 835 (3d Cir. 2014).

Likewise, although there may be some circumstances in which expert testimony will be admissible because it properly derives from the expert's knowledge and experience, *Oddi*, 234 F.3d at 158, the expert must nevertheless still establish that his methodology is reliable. *Steven J.*, 2015 WL 3849166, at \*5. It is insufficient for an expert to offer an opinion that is based on no more than subjective belief or an unsupported speculation. *Oddi*, 234 F.3d at 158; *Kemmerer v. State Farm Ins. Co.*, No. 01-5445, 2005 WL 87017, at \*3 (E.D. Pa. Jan. 19, 2004) (noting that expert's opinion testimony is inadmissible if it expresses only possibilities).

In addition to the requirement that an expert be qualified and to have based his opinions on reliable methodology, an expert's proffered testimony must also "fit" the subject matter of the dispute. The Supreme Court has explained that "fit" is the "require[ment] that the evidence or testimony assist the trier of fact to understand the evidence or to determine a fact in issue.... Expert testimony which does not relate to any issue in the case is not relevant and, ergo, non-helpful." *Daubert*, 509 U.S. at 591 (internal quotations omitted). Expert testimony will meet this standard where "there is a clear 'fit' connecting the issue in the case with the expert's opinion that will aid the jury in determining an issue in the case." *Meadows v. Anchor Longwall & Rebuild, Inc.*, 306 F. App'x 781, 790 (3d Cir. 2009).

Evaluation of proffered expert witness testimony, in turn, takes place against the backdrop of rules which generally favor the admission of all relevant information. Thus, **Rule 402 of the Federal Rules of Evidence** expressly provides that all "[r]elevant evidence will be admissible unless the rules of evidence provide to the contrary." *United States v. Sriyuth*,

98 F.3d 739, 745 (3d Cir. 1996) (citations omitted). While these principles favoring inclusion of evidence are subject to some reasonable limitations, even those limitations are also cast in terms that clearly favor admission of relevant evidence over preclusion of proof in federal proceedings. Thus, Rule 403, which provides grounds for exclusion of some evidence, describes these grounds for exclusion as an exception to the general rule favoring admission of relevant evidence, stating that:

\*6 Although relevant, evidence may be excluded if its probative value is substantially outweighed by the danger of unfair prejudice, confusion of the issues, or misleading the jury, or by considerations of undue delay, waste of time, or needless presentation of cumulative evidence.

*Fed. R. Evid. 403* (emphasis added).

Although **Rule 403** is discretionary, and often will result in courts deferring until trial rulings on the admissibility of relevant proof, *Daubert* teaches that courts must also be mindful of the influence of expert opinion testimony in jury proceedings: "Expert evidence can be both powerful and quite misleading because of the difficulty in evaluating it. Because of this risk, the judge in weighing the possible prejudice against probative force under Rule 403 of the present rules exercises more control over experts than over lay witnesses." *Daubert*, 509 U.S. at 595 (quoting *Jack B. Weinstein, Rule 702 of the Federal Rules of Evidence is Sound; It Should Not Be Amended*). Therefore, we should exercise this discretion in order to ensure that juries are not exposed to unfairly prejudicial, confusing or irrelevant evidence. *United States v. Romano*, 849 F.2d 812, 815 (3d Cir. 1988). Courts may also do so in order to "narrow the evidentiary issues for trial and to eliminate unnecessary trial interruptions." *Bradley v. Pittsburgh Bd. of Educ.*, 913 F.2d 1064, 1069 (3d Cir. 1990) (citation omitted).

#### **B. Application of These Principles to Expert Testimony Regarding PTSD, Sexual Trauma, and Causation**

In the instant case, when we consider how to apply these guiding principles to the expert testimony proffered

here, we do not write upon a blank slate. Quite the contrary, other courts have paved the way, striking the balance between the permissible scope of expert witness testimony concerning PTSD diagnoses and causation, and testimony which improperly encroaches upon the fact-finding prerogatives of the jury. *See e.g., Tardif v. City of New York*, 344 F. Supp. 3d 579, 596 (S.D.N.Y. 2018); *Clark v. Edison*, 881 F.Supp.2d 192, 201 (D. Mass. 2012); *Discepolo v. Gorgone*, 399 F.Supp.2d 123 (D. Conn. 2005); *Isely v. Capuchin Province*, 877 F.Supp. 1055, 1057 (E.D. Mich. 1995). Notably, a number of these decisions collected cases from across the United States that speak to these questions and addressed this issue in the very factual context presented here: allegations of PTSD and related ailments allegedly caused by a specific act of sexual violence. *Clark v. Edison, supra*; *Discepolo v. Gorgone, supra*; *Isely v. Capuchin Province, supra*.

These cases provide several useful guideposts for us in assessing proffered expert testimony concerning PTSD diagnoses. At the outset, assuming that a witness is qualified to render medical opinions in this field, and subject to any inquiry into the sufficiency of the means by which the doctor arrived at his diagnosis, these cases would generally permit expert testimony concerning any PTSD diagnosis of R.D. *Id.* Moreover, courts have also typically permitted general testimony that PTSD, or *post-traumatic stress disorder*, is caused by some emotional trauma, which may include sexual violence. *Id.* However, those courts that have considered this type of expert testimony uniformly agree that allowing the expert to testify in a fashion which opines as to the credibility of the plaintiff's specific allegations of sexual abuse is improper, over-reaching, and intrudes into the core function of the jury—assessing witness credibility. *See Isely v. Capuchin Province*, 877 F.Supp. 1055, 1067 (E.D. Mich. 1995) (“It is clear to the Court that, based even on her own testimony, [t]he [expert] should not be permitted to testify that she either believes Mr. Isely or believes that the incidents he alleges occurred....”); *see also Discepolo*, 399 F.Supp.2d at 130. As one court as observed: “The principal danger in admitting th[is] testimony is the possibility that the jury will interpret the expert's testimony, explicitly or implicitly, as an opinion that the plaintiff is credible.” *Clark*, 881 F.Supp.2d at 216. Therefore, as a general rule “experts may not opine as to the credibility of plaintiff's memories or as to whether the alleged abuse actually occurred, and the Court will underscore that point to the jury with appropriate instructions and cautions.” *Id.*, at 217.

\*7 Given these areas of emerging legal consensus, the principal remaining area of legal discord entails the question of what other expert testimony may be permitted, beyond a diagnosis of PTSD and general testimony that PTSD is caused by some emotional trauma, including sexual violence. On this issue, courts are divided. Some courts have permitted the expert witness to further testify that the plaintiff's PTSD symptoms “are consistent with” PTSD triggered by sexual trauma without allowing the expert to vouch for the plaintiff's credibility by testifying that any particular trauma alleged by the plaintiff caused these symptoms. *See e.g., Clark v. Edison, supra*; *Isely v. Capuchin Province, supra* (collecting cases). In other instances, where the causal connection between PTSD and a specific form of trauma has been less precise, courts have exercised their discretion to preclude such testimony. *Tardif v. City of New York*, 344 F.Supp.3d 579, 597-604 (S.D.N.Y. 2018). Case law also recognizes a countervailing concept in cases involving sexual trauma PTSD claims: Where the proponent of a PTSD claim is permitted expert testimony, properly focused expert testimony challenging that diagnosis should also be allowed. *See e.g., Tardif v. City of New York, supra*; *Clark v. Edison, supra*. Thus, in these circumstances, courts have permitted expert testimony challenging a diagnosis of PTSD. *Tardif v. City of New York, supra*.

One further factor complicates a determination of the proper scope of expert testimony in this field. PTSD is unique among the conditions set forth in the Diagnostic Statistical Manual (DSM) V. For the most part, the DSM eschews any attempt to identify the cause of a psychiatric condition, recognizing that a host of environmental, genetic, and emotional factors combine to shape any mental health diagnosis. However, by its very nature PTSD is triggered by some specific trauma. Therefore, the first diagnostic criteria (criteria A) for PTSD entails some determination of the particular trauma that is the clinical cause of the PTSD, coupled with an evaluation of other criteria, such as persistent intrusion of the traumatic event in the subject's thoughts and persistent efforts at avoidance of the distressing trauma, (criteria B and C), which provide confirming evidence that that a specific trauma was the root cause of the stress disorder. The identification of this triggering trauma, which is part of a diagnosis for PTSD, is sometimes referred to as clinical causation.

**C. Dr. Mack and Dr. Pitman May Testify Regarding Their Diagnoses of R.D. In Addition, Dr. Pitman May Testify that R.D.'s PTSD is Consistent with PTSD Resulting from Sexual Trauma.**

Applying the *Daubert* standards to the proffered testimony of Dr. Mack and Dr. Pitman, we have little difficulty concluding that these two psychiatrists may testify regarding their competing diagnoses regarding the nature of R.D.’s emotional impairments. At the outset, it is undisputed that both Dr. Mack and Dr. Pitman are fully qualified to proffer expert psychiatric opinions. Therefore, the first element of the *Daubert* standard—expert qualifications—is satisfied with respect to both of these witnesses.

As for the second *Daubert* criterion—reliability of the opinion testimony—in both instances these expert witnesses base their opinions and conclusions upon examinations of R.D. and test results, along with a review of R.D.’s medical records and treatment history. These examination techniques are widely accepted within the field of psychiatry, have been subject to peer review over time, are generally regarded as reliable forensic techniques within this field, and were undertaken in ways that appear to fully comport with governing professional norms. Thus, the examinations performed by Dr. Mack and Dr. Pitman appear to meet the reliability factors prescribed by the courts, which consider:

- (1) whether a method consists of a testable hypothesis; (2) whether the method has been subject to peer review; (3) the known or potential rate of error; (4) the existence and maintenance of standards controlling the technique’s operation; (5) whether the method is generally accepted; (6) the relationship of the technique to methods which have been established to be reliable; (7) the qualifications of the expert witness testifying based on the methodology; and (8) the non-judicial uses to which the method has been put.

\*8 *Paoli II*, 35 F.3d at 742 n.8. Further, these expert opinions are expressed with a reasonable degree of scientific certainty, yet another benchmark of reliability. *Pritchard v. Dow Agro Scis.*, 705 F. Supp. 2d 471, 493 n. 18 (W.D. Pa. 2010), *aff’d*, 430 F. App’x 102 (3d Cir. 2011).

Finally, the diagnostic reports and opinions submitted by both doctors in our view satisfy the third, and final criterion

prescribed by *Daubert*—they fit the facts of this case by providing expert guidance concerning one of the pivotal issues in the case; namely, whether R.D. suffers from PTSD. Therefore, both expert witnesses will be permitted to testify to these opinions.

Having concluded that Dr. Pitman’s medical, psychiatric opinion diagnosing R.D. as suffering from PTSD satisfies the *Daubert* test, we will permit the doctor to testify, not only to his diagnosis, but also to the fact that PTSD results from trauma, which may include sexual trauma. On this score, for gatekeeping purposes pursuant to the Supreme Court’s dictates in *Daubert*, we find that Dr. Pitman has persuasively articulated a close correlation between sexual trauma identified as the PTSD criteria A, and the other PTSD criteria, most notably the criteria B and C factors which focus upon persistent intrusion of the traumatic event in the subject’s thoughts and persistent efforts at avoidance of the distressing trauma. In permitting this additional testimony, we will also follow the path taken by other courts, which have allowed similar testimony in cases involving alleged PTSD injuries. *Clark v. Edison, supra*; *Discepolo v. Gorgone, supra*; *Isely v. Capuchin Province, supra*.

We recognize that Dr. Pitman is prepared to go further in his diagnosis and opinion regarding R.D.’s mental state, and is prepared to testify that, in his opinion, the clinical cause of R.D.’s PTSD is the sexual assault that took place in 2007 while R.D. was in the care of Camp Shohola staff. Dr. Pitman expresses the opinion regarding clinical causation, while acknowledging that he has no direct knowledge regarding the question of what actually took place in 2007. Thus, the plaintiff would proffer Dr. Pitman as a witness who could testify that, if the jury found that R.D. was sexually assaulted in 2007, then that assault was the clinical cause of his PTSD.

We acknowledge that, in some other factual contexts involving fatalities courts have voiced a willingness to consider expert clinical causation testimony.<sup>4</sup> We also concede, as the plaintiff has argued, that some courts appear to have also permitted experts testifying regarding PTSD diagnoses to discuss clinical causation in a variety of ways. *United States v. Lukashov*, 694 F.3d 1107, 1116 (9th Cir. 2012); *G.G. v. Grindle*, 665 F.3d 795, 798 (7th Cir. 2011); *United States v. Whitted*, 11 F.3d 782, 785 (8th Cir. 1993); *Weidman v. Colvin*, 164 F. Supp. 3d 650, 684 (M.D. Pa. 2015); *Schoolcraft v. City of New York*, No. 10 CIV. 6005 RWS, 2015 WL 6444620, at \*1 (S.D.N.Y. Oct. 23, 2015); *State v. Alberico*, 116 N.M. 156, 176, 861 P.2d 192, 212 (N.M. 1993);

*State v. Allewalt*, 308 Md. 89, 102, 517 A.2d 741, 747 (1986). As to the legal authority cited by the plaintiff, however, we make the following observations: First, at least some of these cases expressly acknowledge the concern which animates us in this case, a concern that expansive expert testimony in this area may intrude upon the province of the jury. *State v. Alberico*, *supra*. Second, some of this legal authority arises in the context of Social Security litigation, appeals of non-jury administrative proceedings where the risks of confusion for a lay jury are non-existent. *Weidman v. Colvin*, *supra*. Finally, and perhaps most persuasively, a number of these cases appear to have limited the expert witness to testifying that the PTSD symptoms were consistent with sexual trauma. *United States v. Lukashov*, *supra*; *United States v. Whitted*, *supra*.

\*9 While we acknowledge this legal authority, in this setting we believe that even carefully defined clinical causation testimony may be prejudicial and create confusion for the jury, since the use of the term causation may imply to jurors an expert opinion on the ultimate factual issue in this case; namely, whether R.D. was assaulted in 2007 while in the care of Camp Shohola. Such testimony may be unduly prejudicial since it is clear that: “experts may not opine as to the credibility of plaintiff's memories or as to whether the alleged abuse actually occurred, and the Court will underscore that point to the jury with appropriate instructions and cautions.” *Clark*, 881 F.Supp.2d at 217. Accordingly, we will limit Dr. Pitman to testifying that the plaintiff's PTSD symptoms “are consistent with” PTSD triggered by sexual trauma without allowing the expert to vouch for the plaintiff's credibility by testifying that any particular trauma alleged by the plaintiff caused these symptoms. *See e.g.*, *Clark v. Edison*, *supra*; *Isely v. Capuchin Province*, *supra* (collecting cases).

#### **D. Dr. Pitman May Also Testify that R.D.'s PTSD Was a Substantial Contributing Factor in the Onset and Severity of His Other Diagnosed Conditions.**

There is one final aspect of Dr. Pitman's proffered expert testimony which we must address. In addition to his opinions regarding R.D.'s PTSD diagnosis and its causation, Dr. Pitman has also opined that R.D.'s PTSD was a substantial contributing factor in the onset and severity of his depression, anxiety and other emotional disorders. On this score, Dr. Pitman has expressed this opinion within a reasonable degree of medical certainty, and he has bolstered his opinion both by the results of his own examination and testing of R.D., and through reliance upon a substantial body of scientific peer review studies which have drawn significant

correlations between PTSD and other emotional conditions. Indeed, Dr. Pitman cites to no less than 20 studies which provide some empirical support for his opinions that R.D.'s PTSD was a substantial contributing factor in the onset and severity of his other emotional impairments. (Doc. 341). Particularly persuasive among these studies were those studies that involved twins, one of whom was exposed to significant trauma. These studies, which show a correlation between PTSD and other emotional conditions, in our view strengthened the reliability of any inference that PTSD contributes to the onset and severity of other conditions, since twin studies like those cited by Dr. Pitman largely eliminate genetic and environmental variables which could otherwise distort test outcomes.

Provided that an opinion meets the *Daubert* reliability and fit tests, and is expressed with a reasonable degree of certainty, an opinion that states that some condition was a substantial contributing factor to a plaintiff's injury is proper under Pennsylvania tort law. Thus, “[e]xpert testimony is admissible when, taken in its entirety, it expresses reasonable certainty that [an event] was a substantial factor in bringing about [an] injury. The expert need not express his opinion in precisely the same language we use to enunciate the legal standard.” *In re Paoli R.R. Yard PCB Litig.*, 35 F.3d 717, 750 (3d Cir. 1994) (quoting *Cohen v. Albert Einstein Medical Ctr.*, 405 Pa.Super. 392, 592 A.2d 720, 724 (1991)), *appeal-denied*, 529 Pa. 644, 602 A.2d 855 (1992) (quoting *Kravinsky v. Glover*, 263 Pa.Super. 8, 396 A.2d 1349 (1979)). Further,

The substantial factor test applies when a number of different factors each contribute to a particular result; “if two forces are actively operating, one because of the actor's negligence, the other not because of any misconduct on his part, and each of itself is sufficient to bring about harm to another, the actor's negligence may be found to be a substantial factor in bringing it about.”

*In re Paoli R.R. Yard PCB Litig.*, 35 F.3d at 761 n. 31 (quoting Restatement 2d of Torts § 432). In reaching this conclusion and opinion regarding whether some event was a substantial contributing factor to the plaintiff's injuries “the doctor could offer an explanation based on the plaintiff's medical history, laboratory tests or any other reliable source.” *Id.*, at 760.

\*10 In this case, Dr. Pitman has opined that R.D.'s PTSD was a substantial contributing factor in the onset and severity of his depression and other emotional conditions. The doctor expresses this opinion to a reasonable degree of medical certainty, and the opinion is supported by the

doctor's examination and testing of R.D., combined with R.D.'s medical history which revealed no significant history of psychiatric or psychological problems prior to 2007, and a substantial body of scientific literature which supports the proposition that there is a correlation between PTSD and other depressive conditions. On this score, we are mindful that the reliability standard is "not intended to be a high one" and is not designed to be applied in a way that "requires the plaintiffs 'to prove their case twice – they do not have to demonstrate to the judge by a preponderance of the evidence that the assessments of their experts are correct, they only have to demonstrate by a preponderance of the evidence that their opinions are reliable.'" *Oddi v. Ford Motor Co.*, 234 F.3d 136, 145 (3d Cir. 2000) (quoting *Paoli II*, 35 F.3d at 743). Accordingly, we find that this opinion that R.D.'s PTSD contributed significantly to his other impairments has sufficient indicia of reliability that it may be admitted into evidence at trial.

#### **E. Dr. Loftus' Testimony Will Be Excluded at Trial.**

Finally, we turn to consideration of Dr. Elizabeth Loftus' proposed expert testimony. Like Dr. Mack and Dr. Pitman, Dr. Loftus undoubtedly possesses the professional qualifications to serve as an expert witness in certain fields of psychology, particularly as it pertains the science of human recollection. However, in many ways Dr. Loftus' history as an expert witness and her proffered testimony in this case parallel the development of the law in this field and underscore the limitations on such expert testimony. This case law has been marked by several recurring themes. First, courts have recognized that expert testimony concerning the vagaries of human recollection that is stated with sufficient certainty, is grounded upon reliable science, and fits the facts of the case satisfies the *Daubert* standard and should be admitted at trial. *See generally United States v. Mathis*, 264 F.3d 321, 336 (3d Cir. 2001). In contrast, expert opinions regarding the science of human recollection that are not presented with certainty, lack scientific rigor, or possess only a tenuous factual fit are often excluded from evidence. *Id.*

Further, one other consideration cautions in favor of careful judicial oversight in this field. Left unregulated, memory expert testimony can invade the fundamental province of the jury—determining witness credibility. Therefore, where proffered expert testimony regarding the fallibility of human recall "falls within the common knowledge of the average layman, [it] is improper testimony under Rule 702." *United States v. Shiraishi*, No. CR 17-00582 JMS-RLP, 2019 WL 1386365, at \*5 (D. Haw. Mar. 27, 2019) citing *United States*

*v. Labansat*, 94 F.3d 527, 530 (9th Cir. 1996) ("It is common knowledge that memory fades with time."); *United States v. Carter*, 410 F.3d 942, 950 (7th Cir. 2005) ("In general, however, jurors understand that memory can be less than perfect."); *Libby*, 461 F. Supp. 2d at 12 ("[J]urors inevitably encounter the frailties of memory as a commonplace matter of course."); *United States v. Heine*, 2017 WL 5260784 (D. Or. Nov. 13, 2017) (finding that memories are fallible and may deteriorate over time to be "within the ken of the ordinary juror").

In our view, the defendant's supplemental brief (Doc. 353) aptly illustrates how the general principles specifically apply to the proffered testimony by Dr. Loftus as an expert witness. Thus, the legal authority cited by Shohola acknowledges what all parties concede, Dr. Loftus has sufficient qualifications to express expert opinions relating to certain questions concerning memory science. *Dennis v. Sec'y, Pennsylvania Dep't of Corr.*, 834 F.3d 263, 325 (3d Cir. 2016) (McKee, J. concurring). These cases also underscore that, when there is an appropriate showing of relevance and fit, Dr. Loftus' testimony may be admitted. *DeLong v. State*, No. 2-04-410-CR, 2006 WL 3334061, at \*3 (Tex. App. Nov. 16, 2006) (discussing testimony by Dr. Loftus that "false memories can be induced in the mind of a witness *under circumstances similar to those surrounding the outcry statements of the complainants in this case.*") (emphasis added). However, the legal authority cited by Shohola also emphatically underscores that, with respect to Dr. Loftus, her proffered expert testimony must satisfy both the *Daubert* reliability and fit requirements to be admissible. Further, the cases relied upon by Shohola in its supplemental brief make it clear that proffered expert testimony by Dr. Loftus which simply restates matters within the common understanding of lay jurors is inadmissible. *United States v. Shiraishi*, No. CR 17-00582 JMS-RLP, 2019 WL 1386365, at \*5 (D. Haw. Mar. 27, 2019); *United States v. Libby*, 461 F. Supp. 2d 3, 10 (D.D.C. 2006).

\*11 These considerations, which are underscored by the cases cited by Shohola, lead us to conclude that Dr. Loftus' testimony should be excluded in this case. In our view, several factors combine to undermine the reliability and fit of Dr. Loftus' proffered expert testimony. First, unlike Dr. Mack and Dr. Pitman, Dr. Loftus has never examined, tested, or even met R.D. Thus, her opinions rest upon a review of selected documents provided to her by counsel. Consequently Dr. Loftus' 3 ½ page expert report (Defendant Exhibit 3), stands

in stark contrast to the far more extensive and detailed expert reports provided by Dr. Mack and Dr. Pitman.

Moreover, Dr. Loftus' report presents her opinions in a singularly equivocal and speculative fashion. Dr. Loftus does not express her view to a reasonable degree of medical certainty, the benchmark standard of reliability typically sought by the courts and Pennsylvania law. *Griffin v. University of Pittsburgh Medical Center-Braddock Hosp.*, 950 A.2d 996 (Pa. Super. Ct. 2008); *Pritchard v. Dow Agro Scis.*, 705 F.Supp.2d 471, 493 n. 18 (W.D. Pa. 2010), *aff'd*, 430 F. App'x 102 (3d Cir. 2011). Instead, these views are stated as a series of conjectural hypotheses. For example, Dr. Loftus' report suggests that in her testimony, she could explain how "suggestion *may* lead individuals to the construction of false memories, and how suggestion *may* have done so in this case." (*Id.* at 3) (emphasis added). Expert testimony cast in terms of "mays" and "mights" is inherently less reliable than opinions stated with a reasonable degree of scientific certainty.

Further, many of the propositions about which Dr. Loftus proposed to testify are matters well within the ken of a lay jury. For example, the notion that memories deteriorate over time is well within the understanding of a jury without the aid of an expert. *United States v. Heine*, 2017 WL 5260784 (D. Or. Nov. 13, 2017). Likewise, the concept that witnesses can vehemently recall events in a faulty matter is readily understood and is something that falls within the common experience of jurors. Therefore, much of Dr. Loftus' proffered testimony falls within the category of common knowledge, a factor that has often led other courts to exclude this proffered testimony from Dr. Loftus. *United States v. Shiraishi*, No. CR 17-00582 JMS-RLP, 2019 WL 1386365, at \*5 (D. Haw. Mar. 27, 2019); *United States v. Heine*, 2017 WL 5260784 (D. Or. Nov. 13, 2017) (finding that memories are fallible and may deteriorate over time to be "within the ken of the ordinary juror"); *United States v. Libby*, 461 F. Supp. 2d 3, 10 (D.D.C. 2006) (excluding expert testimony, including testimony by Dr. Loftus).

Other aspects of the proffered testimony set forth in Dr. Loftus' report simply do not fit the facts of this case. Thus, in her report Dr. Loftus proposed to debunk the idea of repressed memory, but the plaintiff does not allege that he recovered a repressed memory. Instead, R.D. asserts that he has always recalled the trauma of this alleged incident but delayed disclosing it for a period of time because the recollection was too painful.

In an effort to bolster this expert report, Dr. Loftus testified at the *Daubert* hearing held by the court on November 7, 2019, but that testimony did not eliminate our concerns regarding the fit and reliability of this proffered testimony. Indeed, in some respects Dr. Loftus seemed unprepared to undertake this task. Unlike the other expert witnesses, in a number of instances Dr. Loftus was unable to readily cite to scientific studies or research supporting the positions she expressed, and in fact seemed surprised to be asked to provide empirical support for these propositions.

\*12 Defense counsel's efforts to buttress the doctor's testimony were often unavailing. For example, in the course of her testimony, Dr. Loftus was asked about "brain-spotting," a form of treatment that R.D. allegedly underwent. In response, the doctor testified that her knowledge of this treatment technique had been garnered in part through Internet research, a form of research that is entitled to little weight. Counsel then endeavored to rehabilitate this testimony by proffering scientific articles discussing "brain-spotting," but upon questioning by the court, Dr. Loftus candidly admitted that she never read these articles.<sup>5</sup>

Taken as a whole, Dr. Loftus' testimony at this hearing highlighted the conjectural and speculative aspects of her proffered opinions. Thus, Dr. Loftus disclaimed any ability to discern whether R.D.'s testimony was actually accurate; she declined to identify any particular internal or external factors that she could testify actually distorted R.D.'s recollection; and she declined to provide any expert testimony relating to the phenomenon of intentional dissembling.<sup>6</sup>

Finally, there was at least one other fatal flaw in this proffered testimony in terms of its reliability and fit. In her expert report, Dr. Loftus recounted R.D.'s various accounts of the sexual assault that he alleged took place, describing it as an assault at the hands of an older boy, N.S., which involved attempted anal sex in the course of a highly sexualized game of "Truth or Dare." Dr. Loftus' report then stated that: "Testimony from two of the campers who were in the tent, [E.J. and G.M.] dispute RD's recollections." (*Id.* at 3). Thus, Dr. Loftus posited R.D.'s statements as a factual outlier that drew no support from any other eyewitness accounts, an assertion that served as a major pillar of her suggestion that R.D.'s account may be a false memory which might be the product of self-suggestion, auto-suggestion, or some subtle external influences.

This premise materially misstates the evidence. To be sure, G.M.'s prior statements are marked by exquisite ambiguity, as G.M. described a failure to recall these alleged events while refusing the challenge the veracity of other witness accounts of this sexual abuse. However, the other juvenile in the tent that evening, E.J., has described this episode in terms that are remarkably similar to R.D.'s account. Thus, E.J. has stated that he too was victimized by N.S. who attempted anal intercourse with E.J. in the tent during the course of a highly sexualized game of "Truth or Dare."

**\*13** Given this description provided by E.J., Dr. Loftus' suggestion that E.J.'s account of these events disputes R.D.'s recollection is plainly wrong. Quite the contrary, E.J.'s statements graphically confirm and corroborate R.D.'s description of these events. This factual error, in turn, undermines the reliability and fit of the doctor's opinions in a number of respects. First, it obliterates the premise that R.D.'s recollection is a factual outlier. Second, we are constrained to note that there is no indication that E.J. and R.D. have maintained contact with one another or compared accounts of this incident. Further, it is evident that these two young men have experienced entirely different internal influences and external environments since 2007. Thus, in order to find that Dr. Loftus' proffered testimony has sufficient reliability and fit to be presented at trial, we would have to conclude that the remarkably congruent accounts of these two disparate witnesses were false accounts that were somehow simultaneously and spontaneously generated by a series of unrelated and unconnected internal and external influences. Nothing in Dr. Loftus' testimony supported the notion of spontaneous synchronicity in the creation of false memories by disparate witnesses. Therefore, this testimony lacks the requisite reliability and fit required under *Daubert* in the circumstance presented here.

Thus, as to Dr. Loftus we are left in the same position as the one of the most recent courts which has considered, and rejected, her proffered testimony, the district court in *United States v. Shiraishi*, No. CR 17-00582 JMS-RLP, 2019 WL 1386365, at \*6 (D. Haw. Mar. 27, 2019), which found that:

In sum, the court does not question Loftus' expertise or qualifications. And the court certainly agrees that, in the right case, her testimony may aid a jury in understanding [aspects of human memory]. But her testimony

is simply not a fit for *this* case.... Thus, the court must exercise its gate-keeping role under *Daubert* and exclude Loftus' expert testimony.

*Id.*

Yet while we find that this proffered testimony fails to meet the *Daubert* standards of reliability and fit, we note that this ruling does not completely preclude Shohola from presenting evidence regarding these matters and arguing this issue at trial. Quite the contrary, Dr. Mack, whose proffered expert testimony we have found satisfies *Daubert*, expressly addresses alleged inconsistencies in R.D.'s accounts of this incident as part of his opinion discounting a PTSD diagnosis for R.D. in this case. Instead, we simply conclude that Dr. Loftus' proffered testimony does not meet the standards prescribed by law and must therefore be excluded.

An appropriate order follows.

## **ORDER**

AND NOW, this 15<sup>th</sup> day of November 2019, following a *Daubert* hearing and consideration of the parties' submissions, and in accordance with the accompanying Memorandum Opinion, IT IS ORDERED as follows:

1. The expert testimony of Dr. Avram Mack and Dr. Roger Pitman regarding their diagnoses of R.D. will be permitted at trial.
2. Dr. Pitman will also be permitted to testify: (1) that PTSD is caused by trauma, including sexual trauma; (2) that R.D.'s PTSD diagnosis is consistent with PTSD caused by sexual trauma; and (3) that R.D.'s PTSD was a substantial contributing factor in the onset and severity of his other mental health conditions. In order to avoid juror confusion or intrude into the province of the jury to determine credibility, Dr. Pitman will not be permitted to express a clinical causation opinion specifically linking R.D.'s PTSD to events in 2007. Upon request, we will also provide an appropriate cautionary instruction to the jury regarding this expert testimony.

3. Finding that it lacks the requisite reliability and fit in the facts of this case, the proffered expert testimony of Dr. Elizabeth Loftus will be excluded at trial.

**All Citations**

Not Reported in Fed. Supp., 2019 WL 6053223

**Footnotes**

- 1 To protect the privacy of these minors they will be identified only by initials in this opinion.
- 2 In addition, the defense had proffered another expert witness, Dr. Sorrentino. The thrust of Dr. Sorrentino's proffered testimony as described in her expert report was that N.S.'s specific propensity for sexual violence was not foreseeable. (Doc. 175-1, pp. 90-3.) We have addressed this proffered testimony finding that it is inadmissible for a host of reasons. First, we have already held that the plaintiff's direct negligence claim may rest upon an allegation that some risk of harm when young boys are left unsupervised in tents was generally foreseeable and need not be tied to the question of whether harms specifically committed by N.S. were foreseeable. *R.D. v. Shohola, Inc.*, No. 3:16-CV-01056, 2018 WL 5920640, at \*6 (M.D. Pa. Nov. 13, 2018), reconsideration denied, No. 3:16-CV-01056, 2019 WL 1584600 (M.D. Pa. Apr. 12, 2019). Therefore, the focus of Dr. Sorrentino's testimony was misplaced and was not directly relevant to the remaining claim in this case. Moreover, and more fundamentally, Dr. Sorrentino's report revealed that the doctor had never seen, treated, or examined N.S. and her assessment of foreseeability of risk was based upon reading exhibits and deposition transcripts which simply indicated that the defendants had no prior notice of sexual predation by N.S. We found that while Dr. Sorrentino's recitation of this factual testimony might add a certain academic cachet to this evidence, it was not proper expert testimony. Further, the summary report of Dr. Sorrentino did not provide a basis for assessing the reliability of any expert opinion she may render regarding predicting future dangerousness of a particular person. Therefore, we concluded that we would not permit this expert testimony at trial, absent some much more compelling showing of relevance, reliability, and fit. Shohola has made no such further showing.
- 3 The defendant has also proffered as an expert witness, Dr. Avram Mack, a psychiatrist who has examined R.D. and who opines that he does not suffer from PTSD. The plaintiff has not specifically challenged Dr. Mack's suitability as an expert witness under the standards prescribed by the Supreme Court in *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579, 113 S. Ct. 2786, 125 L. Ed. 2d 469 (1993), but has reserved the right to actively challenge that testimony at trial. Nonetheless in order to comprehensively address these expert witness issues, we will make some specific findings with respect to Dr. Mack in this opinion.
- 4 See *Wicherman v. City of Philadelphia*, 2019 U.S. Dist. LEXIS 103770, \*23 (E.D. Pa. 2019) ("This extensive experience in the field of addiction medicine qualifies Wakeman to use testimony and forensic toxicology evidence to opine about the clinical cause of Wicherman's death."); *Carlock v. People of the Virgin Islands*, 2010 U.S. Dist. LEXIS 142428, \*3 (D.V.I. 2010) ("The treating emergency medical technician and the pathologist who examined Reid's body also testified to the extent of Reid's injuries and clinical cause of death."); *Martinez Perez v. Hyundai Motor Co.*, 440 F. Supp. 2d 57, 76 (D.P.R. 2006) ("Her testimony was strictly limited to the clinical cause of death.")
- 5 This "brain-spotting" testimony was subject to a separate objection. Nothing in Dr. Loftus' December 2017 report made the slightest reference to "brain-spotting." We note that Shohola apparently concedes as much since it has now withdrawn a "brain-spotting" exhibit from its proposed exhibit list. (Doc. 352 ¶5).
- 6 Our understanding of the scope of this proffered testimony was not materially advanced through the hypothetical questions posed to the doctor at this hearing by the proponent of her testimony, since those protracted hypotheticals were littered with extraneous matters like self-deprecating remarks by R.D. concerning his sexuality, and a far-fetched theory that R.D. invented this entire episode, underwent years of

therapy, and has pursued this litigation based upon an a deliberate lie, a false statement which the defendant Shohola speculated R.D. told as a teen in order to avoid a heterosexual encounter with a former girlfriend. We have seen absolutely no evidence to support this speculation. But if this deliberate mendacity is the defense theory, then Dr. Loftus, by her own admission, is not an appropriate expert witness since the doctor testified that she has not studied the psychology of dissembling. Thus, Dr. Loftus' proffered testimony fits neither the facts of this case, nor the theory of the case embraced by this hypothetical question.

---

End of Document

© 2022 Thomson Reuters. No claim to original U.S. Government Works.